APPENDIX A

IN THE
UNITED STATES COURT OF APPEALS
FOR THE SEVENTH CIRCUIT

No. 73-1650

THE PROCTER AND GAMBLE COMPANY, and FMC CORPORATION,
Plaintiffs-Appellees,

v.

THE CITY OF CHICAGO,
Defendant-Appellant.

DECIDED JANUARY 15, 1975

Before SWYGERT, *Chief Judge,* FAIRCHLD and CUMMINGS, *Circuit Judges.*

SWYGERT, *Chief Judge.* This appeal presents the question of whether an ordinance of the City of Chicago that bans the use of detergents containing phosphates is unconstitutional on the ground that it results in an impermissible interference with interstate commerce. This district court decided that the ordinance is unconstitutional.[1] We disagree.

The ordinance was adopted by the City Council after its Committee on Environmental Control had held public meetings for three days. The measure provided that the

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[1] *Soap and Detergent Ass'n* v. *Chicago,* 357 F.Supp. 44 (N.D. Ill. 1973).

sale of detergents containing any phosphorous after June 30, 1972 constituted a criminal offense.[2] Most detergents sold in this country contain phosphates which are compounds containing the element phosphorous.

The present action was brought seeking declaratory and injunctive relief. Plaintiff-appellee Procter and Gamble Company is a manufacturer of phosphate detergents. Plaintiff-appellee FMC Corporation processes and manufactures sodium tripolyphosphate and other phosphate products for use in detergents. Three other plaintiffs were dismissed for failure to prove the jurisdictional amount and have not appealed. The second amended complaint alleged only a violation of the Commerce Clause of the Constitution (Article I, Section 8, Clause 3) and the case was tried on that issue.

A substantial amount of evidence, including exhaustive expert scientific and technical testimony by many witnesses, was presented both in court and by depositions. As the district court observed, this evidence is much too extensive to be set out in any detail. We think we need present only a broad outline of the more relevant evidence.

The plaintiffs unquestionably showed that the ordinance has had an adverse effect upon their businesses which admittedly are national in scope. Procter and Gamble was unable to sell any detergents in the Chicago area for five months after June 30, 1972 and lost $4,700,000 in sales as a result. FMC lost $500,000 worth of sales of phos-

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[2] Chicago, Ill., Code ch. 17, art. VII, § 17-73(b) (1973) provides:

> It shall be unlawful for any person, firm, or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent containing any phosphorus, expressed as elemental phosphorus, including synthetic detergents or detergents manufactured for machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment, within the City of Chicago from and after June 30, 1972.

phates as a result of the ordinance. Further, whereas before the ordinance Procter's Chicago plant was able to supply over 96 percent of the requirements for the six-state "Chicago Plant Area," after the ordinance became effective the plant could supply only 51 percent, which necessitated shipments to this area from other Procter plants in Louisiana, Missouri, and Kansas. The result was the establishment of a different and, from the company's viewpoint, a less efficient interstate system of distribution of its products.

Evidence was also introduced concerning the warehousing practices of the retail grocery chains serving Chicago and the surrounding area. These chains, which include chains of independents, warehouse their products on an area-wide basis as opposed to a city-wide basis. Goods are purchased from the manufacturer and stored in warehouses for eventual distribution to the individual retail stores. In the Chicago area, the same warehouses also service stores in northern Illinois, northern Indiana, southern Wisconsin, and Michigan. At the warehouses, each product is stored in its own particular area called a slot. There was testimony that these warehouses will not "double slot" a product and thus refused to carry both phosphate and non-phosphate versions of the same product. The explanation is that there is not sufficient space in the warehouses and there would be the possibility of a violation of the ordinance if phosphate formulas were accidently shipped to Chicago stores. Of the seventeen major Chicago area customers of Procter and Gamble, fifteen chose to carry only non-phosphate detergents. The result has been that consumers in areas of Illinois or the other adjacent states where the sale of phosphate detergents is legal can purchase only non-phosphate formulas of the major detergents from stores which are part of these fifteen chains. Thus, the Chicago ordinance affected Procter and Gamble's ability to sell its phosphate detergents in other states.

The bulk of the evidence dealt with the nature and effect of phosphates and particularly their effect on the water moving in the Illinois Waterway. Phosphates are not a problem in and of themselves. They are not harmful to most humans and are even added to water by some communities for the purpose of softening. The aspect of phosphates that causes concern is their nutritive contribution to the eutrophication of rivers or lakes. Eutrophication is a process of aging, whereby a body of water becomes over-nourished in nutrient elements such that there occurs an extensive growth of green plants or nuisance algae. Nuisance algae can result in an unpleasant ordor and a bad taste in drinking water. It is the elimination and prevention of these algae that is desirable.

Some controversy exists, however, concerning the relationship of phosphorous and eutrophication. An abundance of phosphorous does not always result in increased eutrophication. It is a more complex process and its exact nature is somewhat in dispute. Other nutrients including nitrogen and carbon are needed for eutrophication. So far as the nutrient aspect of eutrophication is concerned the important inquiry centers on the idea of the "limiting nutrient" or "limiting factor." The "limiting nutrient" is that nutrient that is in the shortest supply relative to the need for it for plant growth. It is the factor which limits any further aquatic growth. The district court found that phosphorous can be a "limiting factor" for nuisance algae only at .02 milligrams per liter or less. There is some evidence, however, that phosphorous is the nutrient that is most easily controlled.

The ordinance's most direct effect is on the Illinois Waterway because the City's sewage effluent flows into it. This Waterway, which includes the Illinois River, is a water source for some communities, but not for Chicago. The Waterway has a very high percentage of phosphorous. The district court determined that before the passage of

the ordinance the amount of phosphorous present in this Waterway was at least twenty-five times as much as is necessary to sustain nuisance algae. Still, there is a question of whether there is any nuisance algae problem in the Illinois River. Although the City introduced photographs showing the presence of such algae, the district court concluded "that there was no significant amount of nuisance algae in the Illinois River."[3] Explanations offered for this lack of growth included the excessive turbidity of the river which prevents needed sunlight, periodic flushing, and possibly some undefined trace elements which inhibit such growth. Also, the district court found that the elimination of Chicago phosphates alone would not result in reaching the "limiting factor" level, though a 66 percent reduction did result in at least part of the Waterway after the ordinance had been in effect.

Finally, there is the evidence concerning Lake Michigan which is the source of Chicago's water supply. The danger of nuisance algae is more pronounced with regard to Lake Michigan because it does not have the flushing quality of a river. Moreover, the phosphorous concentration is at about the "limiting factor" of .02 milligrams per liter. But unlike some of the other communities along the lake, Chicago's sewage does not normally flow into the lake; only during excessively heavy rainstorms is one of two rivers reversed so that sewage flows into Lake Michigan. The district court determined that such reversals occurred only four times within a ten year period, though there was also testimony that the frequency of such reversals is increasing. As to the amount of phosphates entering the lake during a year in which a back-flow resulted, the conclusion of the district court was that detergents contributed only 250 tons or about three percent of the total entering the lake each year.

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[3] 357 F.Supp. at 49.

Based on this evidence the trial court determined that the phosphate ban was unconstitutional. It decided that the ordinance resulted in increased costs of manufacture and distribution and burdened interstate commerce. Once the plaintiffs had proven this much the court held that the City was then required to justify the ordinance by showing some need to protect the public health, safety, or welfare. Though it found that the "ordinance was enacted in good faith and for laudatory objectives,"[4] the justifications offered for the ordinance were not sufficient to outweigh its interference with interstate commerce. The court held that the City did have the power to protect the water quality for persons living downstream, but the ordinance by itself would not have any beneficial effect on the Illinois Waterway. The actual effect on Lake Michigan was apparently considered too minimal to support the legislation; the theory that the City could enact the ordinance in order to influence other communities to stop discharging phosphates into Lake Michigan was rejected. Though the court conceded that such an ordinance might be sustained in some other jurisdiction where the water supply situation is different, it concluded that Chicago could only enact the ordinance on a standby basis to become effective only when other controls have brought the phosphorous content of the Illinois Waterway down to the "limiting level."

I

It is difficult to discern the precise test that should be used to determine when a state or local legislative enactment's effect on an area of interstate commerce that has not been preempted by Congressional legislation is violative of the Commerce Clause of the Constitution. It is clear that we must first decide whether there is such an effect and what it is, for if we find no effect our inquiry need not

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[4] 357 F.Supp. at 51.

progress. However, if some effect is found then we must proceed to consider whether the legislative body "has acted within its province, and whether the means of regulation chosen are reasonably adapted to the end sought."[5] The more difficult question is whether our analysis should encompass an additional step if the legislation is found to be a reasonable means of achieving a legitimate end. The predominant test utilized by the Supreme Court appears to require that the burden imposed on interstate commerce be balanced against the local benefit in order to determine the ultimate question of constitutionality. *See Bibb* v. *Navajo Freight Lines, Inc.*, 359 U.S. 520 (1959), and *Southern Pacific Co.* v. *Arizona*, 325 U.S. 761 (1945). The Court's most recent formulation is that contained in *Pike* v. *Bruce Church, Inc.*, 397 U.S. 137, 142 (1970):

> Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.

There is some support, though, for the proposition that once it is determined that the legislation is a reasonable means of achieving a nondiscriminatory, legitimate goal it should be deemed constitutional and any further weighing process need not occur.[6] One commentator has suggested that this "third stage" balancing process is undesirable because it can lead to the usurpation of the legislative role.[7] Moreover, it is argued that in fact the

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[5] *S. C. Highway Dep't* v. *Barnwell Bros.*, 303 U.S. 177, 190 (1938).

[6] Obviously, there is some degree of balancing involved in the initial determination of whether the end sought is a legitimate local concern.

[7] D. ENGDAHL, CONSTITUTIONAL POWER: FEDERAL AND STATE IN A NUTSHELL (1974). Engdahl's theory is discussed in Note, *Use of*

Supreme Court has perhaps eliminated this final balancing step by its opinion in *Brotherhood of Locomotive Firemen & Enginemen* v. *Chicago, Rock Island & Pacific Railroad Co.*, 393 U.S. 129 (1968). *Brotherhood* involved the validity of the Arkansas "full-crew" laws for railroads. The district court had analyzed conflicting evidence concerning the safety value of such laws and determined that at best they provided for a small increment in safety not worth the cost. This was found not to outweigh the burden on interstate commerce. In reversing, the Supreme Court indicated that the analysis endorsed by the lower court was incorrect:

> We think it plain that in striking down the full-crew laws on this basis, the District Court indulged in a legislative judgment wholly beyond its limited authority to review state legislation under the Commerce Clause.[8]

The matter was one properly left for the legislature because the evidence "leaves little room for doubt that the question of safety in the circumstances of this case is essentially a matter of public policy, and public policy can, under our consitutional system, be fixed only by the people acting through their elected representatives.'"[9]

The *Brotherhood* case has been relied upon in cases similar to the one at bar. In discussing the Commerce Clause implications of an environmental statute a state court commented:

> The language of Pike v. Bruce Church, Inc., supra, does not mechanically compel a weighing process in every case. The language is instructive in appropriate cases rather than mandatory in all cases . . . . The

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the Commerce Clause to Invalidate Anti-Phosphate Legislation; Will it Work?, 45 U. COLO. L. REV. 487 (1974).

[8] 393 U.S. at 136.

[9] 393 U.S. at 138.

> United States Supreme Court recognized the inappropriateness of a weighing process in cases of noncomparable benefit and injury . . . in Firemen v. Chicago, R.I. & P. R. Co. . . .[10]

Indeed, one court confronted with a challenge to the same type of legislation before us adopted the *Brotherhood* opinion as the controlling case.[11]

Our case, we believe, has elements that require a compromise between *Brotherhood* and *Pike*. Like *Brotherhood* there is conflicting evidence concerning the value of this legislation. Here the conflict relates more to the question of whether the ordinance will result in preventing nuisance algae, as opposed to the question of how much benefit there is from the removal or prevention of such algae. The latter is the type of "public policy" question that is directly addressed in *Brotherhood*. The district court did not and should not have evaluated the benefits to be derived from the improved water quality associated with the elimination of nuisance algae. It was proper, however, for the court to consider the "factual" question of whether the ordinance has any relationship to the elimination of nuisance algae. The question that we are faced with is how much weight, if any, should be accorded the legislative body's determination that the means are reasonably related to achieving the end. In the present case we think that it is at this point that the *Pike* balancing stage occurs. The district court addressed this issue as if it was an ordinary factual dispute over a technical matter that should be decided without the benefit of a presumption. It is our view, however, that if the burden on interstate commerce is slight, and the area of legislation is one that is properly of local concern, the means chosen to accomplish

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[10] *American Can Co.* v. *Ore. Liquor Control Comm'n*, 517 P.2d 691, 697 (Ore. App. 1974).

[11] *Soap and Detergent Ass'n* v. *Clark*, 330 F.Supp. 1218 (S.D. Fla. 1971).

this end should be deemed reasonably effective unless the party attacking the legislation demonstrates the contrary by clear and convincing proof.[12] If it is determined that this presumption should be applied, no further balancing need be undertaken. The end has already been deemed legitimate and the burden on interstate commerce slight. If the legislation is a reasonable means to that end it is constitutional.

II

Having in mind the framework of our analysis, we begin by considering what, if any, burden was imposed on interstate commerce by this ordinance. The first major argument raised by the plaintiffs, and apparently accepted by the district court, is that the ordinance burdened interstate commerce by impairing the normal operation of companies having interstate sales and requiring these companies to create new, and less direct, shipping routes. The argument is based on the fact that Procter and Gamble's plant in the Chicago area could not adequately supply its six-state area with detergents because the plant had to manufacture two lines of detergent products and thus reduce its capacity. The result was that products had to be shipped to some of these states from plants which happened to be at different, and often further, locations. The principal cases relied on to support this theory involve interstate carriers whose ability to efficiently transport other's goods through particular states was permanently impaired.[13] With our case, we are not confronted with a situation in which legislation has reduced the effectiveness of a means of transportation itself. In this context the ordinance is not a burden on interstate commerce,

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[12] See also the suggestion for a somewhat different presumption in Note, *supra*, n .7, at 493.

[13] *Bibb* v. *Navajo Freight Lines, Inc.*, 359 U.S. 520 (1959); *Southern Pacific Co.* v. *Arizona*, 325 U.S. 761 (1945).

but is merely a "burden" on a company which happens to have interstate distribution facilities. The effect of the ordinance is that the particular interstate systems of distribution used by Procter and Gamble and other detergent companies before the passage of the ordinance can no longer be used. This is because of the freely chosen geographical locations of their various plants, not because of the requirements of this ordinance. There is no impairment of the ultimate ability to transport in interstate commerce in the most efficient and economical manner possible. While this factor might necessitate a change in certain production facilities, it does not rise to the level of an unconstitutional burden on interstate commerce.[14]

Plaintiffs also argue that the ordinance is a burden on interstate commerce because there is a "potential for conflicting legislation." Other jurisdictions, including some within the Chicago marketing area, have enacted phosphate detergent legislation, and it is urged that such local legislation might conflict with each other so as to inhibit the uniformity necessary for the national manufacture and distribution of detergents. It is claimed that Milwaukee has an ordinance that not only restricts phosphates, but also prohibits highly alkaline detergents which have been used as substitutes for phosphate detergents. But there is no evidence in the record to prove that any phosphate substitutes used by the appellees in Chicago violate Milwaukee's ordinance. The Supreme Court has indicated that in a case involving environmental legislation it is actual conflict, not potential conflict, that is rele-

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[14] A similar conclusion was reached in the analogous case of *Colgate-Palmolive Co.* v. *Erie County*, 327 N.Y.S.2d 488, 491 (Sup. Ct. 1971):

> The primary burden which is placed upon the petitioner Colgate involves nothing more than the changing of production facilities at the point of origin. There is no interference mandated by the County Law with transit across the state lines. . . .

vant.[15] Moreover, once again the plaintiffs have drawn the main support for their argument from the cases involving interstate carriers. The importance of uniformity is not as great in the present type of case in terms of interstate commerce. As Judge Stevens of this circuit has stated:

> [W]e think it certainly is true where you have a carrier who necessarily goes from state to state carrying the goods of third parties there is a higher interest in uniformity throughout the nation, but with respect to a commercial enterprise such as a manufacturer of detergents there is not the same national interest in uniformity throughout the country.[16]

No burden has been shown based on this theory.

Another argument presented by plaintiffs is that the ordinance burdens interstate commerce because it amounts to an embargo on a safe, useful, and unique product of commerce without any corresponding local benefit. We find no merit to this argument. In essence, it is not a Commerce Clause argument but one based on substantive due process, an issue not before us. The only Commerce Clause cases cited for this proposition involve situations in which a state has attempted to achieve a local purpose by discriminating against out-of-state producers or manufacturers.[17] There is no discrimination in this case. The ordinance does not require that detergents be manufactured in Chicago or Illinois and does not benefit manufacturers who are located there.

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[15] *Huron Portland Cement Co.* v. *Detroit*, 362 U.S. 440, 448 (1960).

[16] *Soap and Detergent Ass'n* v. *Offutt*, 3 ERC 1117, 1119 (S.D. Ind. 1971).

[17] *Pike* v. *Bruce Church, Inc.*, 397 U.S. 137 (1970); *West* v. *Kansas Natural Gas Co.*, 221 U.S. 229 (1911); *Minnesota* v. *Barber*, 136 U.S. 313 (1890).

There is one theory of plaintiffs, however, in which we find some merit. This ordinance does have an extraterritorial effect because of the four-state warehouse marketing system employed by the major wholesale purchasers of detergents. Since a substantial number of the retail grocery stores within a 150 mile radius of Chicago are supplied from seventeen grocery warehouses in or near Chicago, the refusal of these warehouses to "double slot" detergents means that many people outside Chicago cannot buy phosphate detergents even though they wish to use them. Potential purchasers in other states are prevented from obtaining a detergent formula that manufacturers may legally sell in those states. Though the ordinance may not directly dictate such a result, one effect is that the free flow in commerce of a particular product is disrupted. Such a disruption must be deemed a burden on interstate commerce.

Still, there is the question of how substantial is this burden. It is important to realize that this burden is one that was not intended by the City Council, even though that factor is not determinative. The effect is an incidental one due to the nature of the grocery warehouse system over which the City Council has no control.

Moreover, all the potential purchasers of phosphate detergents in this area outside Chicago are not affected by the ordinance. Other jurisdictions in the Chicago marketing zone also have limitations on phosphate detergents. Purchasers in these areas are restricted by their own local legislation. And in the areas without such legislation phosphate detergents assumedly will be available at those stores which are not part of these chains. Two of the seventeen chains chose to carry phosphate formula detergents, so such products will also be available at those stores. While there might be people who cannot buy phosphate detergents in their own towns, the foregoing factors tend to lessen the burden. Indeed, there is the possibility

that manufacturers might be able to "drop-ship" directly from the plant to stores in some areas. Although this might not be the customary or most economical procedure, Procter and Gamble distributes its products in this manner for about one percent of its total business.

We are troubled by the contention that these large warehouses absolutely refuse to stock two formulas of the same detergent. Procter and Gamble and the other two large detergent manufacturers are huge companies that could exert at least some "leverage" on these warehouses. Admittedly, there is testimony that Procter and Gamble has tried to convince them to handle both and has had very limited success. But we wonder whether such leverage would not increase when this lawsuit is not a consideration. One would think that the grocery chains would have an incentive to carry both types of detergents in order to compete with those stores selling what Procter and Gamble claims is the "superior" detergent formula.

We are not totally persuaded by the grocery chains' explanation of why only one type of detergent can be stocked. The major reason presented is lack of space. But it would seem that the total number of boxes of detergents sold would be about the same whether two formulations or only one are offered. The aggregate supply of cartons kept in the warehouse would not increase unless it is necessary to maintain the same amount of product in stock even though less of it is being sold. It is not clear from the record why more actual space in the warehouse would be necessary if the same number of cartons is separated into two types rather than one. Possibly, the explanation is due to the limited availability of warehouse slots which, in at least some warehouses, are metal racks. But again the record does not show why the slots that are used for detergents cannot be split into two smaller slots that could accommodate the stock necessary for each type of detergent, assuming the total number of boxes in stock has not changed.

Nor can we unquestionably accept the contention that carrying both types of detergents would result in a great risk of accidental shipments to and sale of phosphate detergents by stores within Chicago in violation of the ordinance. If this were the only concern we are sure that some procedure could be arranged to minimize this possibility. For instance, the cartons that contain boxes of phosphate could be made a different color so they would be easily distinguishable. Certainly under such a procedure the employees of the individual stores could recognize a mistake and not sell the illegal detergent.

We recognize that the Chicago ordinance combined with the grocery warehousing practice can result in interfering with the full distribution of phosphate detergents to areas outside of Chicago. But many of these consumers would probably have access to such products either at other stores or at chain stores that might receive drop-shipments. Our analysis has indicated that if there was sufficient demand it might even be possible that all the large warehouses would carry phosphate detergents. Overall, we conclude that the ordinance's effect on full access to certain products by consumers in parts of other states can only be classified as a slight burden on interstate commerce.

III

Having determined that the ordinance does impose some burden on interstate commerce, we are required to consider whether the interest sought to be served by the legislation is a legitimate local concern. As with most cases of this type, the goal of this legislation can be stated in its ultimate terms—protection of health and welfare. For purposes of our analysis, we believe that it would be more useful to express the objective simply as the prevention and elimination of nuisance algae. This is an environmental objective toward which local legislation may probably be aimed. In broad terms this legislation is part

of the overall attack on the problem of water pollution. Though there is federal intervention in this general area, this does not prevent local attempts to deal with one of our most immediate and difficult problems.[18] As the Supreme Court has said in regard to a city's power to enact legislation designed to curb pollution:

> In the exercise of that power, the states and their instrumentalities may act, in many areas of interstate commerce and maritime activities, concurrently with the federal government.[19]

Indeed, Congress appears to have specifically encouraged such local legislation.[20] The Federal Water Pollution Control Amendments of 1972 provide:

> Except as expressly provided in this chapter, nothing in this chapter shall (1) preclude or deny the right of any State or political subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B) any requirements respecting control or abatement of pollution.[21]

Moreover, as noted earlier, there are no discriminatory aspects associated with this purpose that might invalidate it. The objective is legitimately local and non-discriminatory which means that it may properly be the end toward which local legislation is addressed.

Finally, we see no problem in the fact that the ordinance is aimed, at least in part, toward nuisance algae

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[18] There is no contention in this case that this particular area of legislation has been preempted by Congressional action.

[19] *Huron Portland Cement Co.* v. *Detroit*, 362 U.S. 440, 442 (1960).

[20] The relevance of such Congressional encouragement has been recognized in *Parker* v. *Brown*, 317 U.S. 341, 367-68 (1943).

[21] 33 U.S.C. § 1370 (Supp. II, 1973).

downstream from Chicago. We agree with the conclusion of the district court that the City can be legitimately concerned with preventing any damage to its neighbors caused by Chicago's actions.

IV

We are now at the stage where we must determine whether the ordinance is a reasonable means of reaching the end desired. We have previously concluded that the burden on interstate commerce that results from this ordinance is slight and the objective of this legislation is legitimate. We hold that the burden is so slight compared to the important and properly local objective that the presumption we discussed earlier should apply. We will accept the City Council's determination that this phosphate ban is a reasonable means of achieving the elimination and prevention of nuisance algae unless we find that the plaintiffs have presented clear and convincing proof to the contrary.[22]

We discuss first the Illinois Waterway because this is the heart of the factual controversy. An initial consideration is whether there is presently a nuisance algae problem in the Illinois River. The City did introduce some testimony and photographs indicating the existence of excessive algae blooms in the Illinois River. But the plaintiffs presented credible evidence to the effect that presently there is no nuisance algae growth in the Waterway. The district court concluded that there was no "significant" growth. We can at least assume that there is some

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[22] We note that even if it is a relevant consideration at this point, there is not a reasonable and less burdensome alternative way to eliminate phosphates from the sewage effluent. Elimination of phosphates by means of sewage treatment is too costly and requires too great a waste of chemicals to be deemed a constitutionally mandated alternative. *See generally Dean Milk Co.* v. *City of Madison*, 340 U.S. 349 (1951).

nuisance algae and the possibility of more in the future, since there was no convincing proof that such an increase will not occur. The testimony that the excessive turbidity and flushing quality of the river prevent algae blooms is far from conclusive. Indeed there are apparently some nuisance algae at present. The inhibitory factor might be a nutrient other than phosphorous that will greatly increase in concentration. The prospect for the future is unknown.

The crux of the matter is actually the question of whether the phosphorous level in the Waterway will ever be relevant to the control or removal of nuisance algae. We do not believe that the plaintiffs have met their burden of showing convincingly that limiting the quantity of phosphorous can never be the key to the problem. Admittedly, the evidence seems clear that phosphorous is not the "limiting factor" in the Waterway at this time. Moreover, even with the elimination of detergent phosphates from the Chicago sewage effluent, the phosphorous level would not reach the limiting point. The Chicago ordinance, by itself, would have no immediate effect on the Waterway. This does not indicate, however, that the ordinance is not a means of dealing with nuisance algae. The plaintiffs introduced evidence to show that the amount of phosphorous in the Illinois River could greatly increase without increasing nuisance algae. Even if this is true, it only proves that phosphorous is presently not the "limiting nutrient." It does not prove that phosphorous might not be the "limiting nutrient" at some point in time. Indeed, Chicago's ordinance appears to be a significant first step toward that goal. We do not agree with the district court that it can only be enacted on a stand-by basis. If this were the law, all programs aimed at eliminating phosphorous from the Waterway would have to be enacted at the same time. We can assume that other communities might follow Chicago's lead and prevent phosphate detergents. Nor do we think that there was clear evidence that if all

phosphorous from detergents were eliminated there would still be other uncontrollable sources that would keep the level above the limiting point. There was testimony that indicated that agricultural run-off of phosphorous can be controlled. For Commerce Clause purposes the City Council was justified in believing that eventually its phosphate ban, in conjunction with other actions, would result in eliminating and preventing nuisance algae in the Illinois Waterway.

The effectiveness of the legislation is also shown, to some extent, by the evidence concerning Lake Michigan.[23] There is no question that both eutrophication and phosphorous are serious problems in regard to Lake Michigan. Though Chicago might contribute relatively little phosphorous to the lake, the phosphorous level is at such a precarious point that even this minimal amount takes on added importance. Further, contrary to the district courts view, we find that Chicago has a legitimate interest in banning phosphate detergents as an example for other communities presently releasing their sewage into Lake Michigan. Chicago is attempting to convince these communities to control their phosphate discharge into the lake. Chicago could reasonably decide that it would be aided in this endeavor if it could show these other jurisdictions that Chicago is willing to endure whatever hardships may be associated with the loss of phosphate detergents. Given the other aspects of the legislation that support its presumption of effectiveness, we need not reach the question of whether this hortatory element by itself could support

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[23] The City has argued in its brief that the ordinance also helps Lake Michigan because it has the result of preventing other areas from receiving phosphate detergents too, and thus these areas are forced to control their discharge of phosphorous into the Lake. We totally reject the contention that the effectiveness of the ordinance can be supported on the basis of this extraterritorial coercion. We do not believe that the City Council considered this possibility and we in no way rest our decision on this argument.

the conclusion that the ordinance provides a means sufficiently effective to be declared constitutional. Based on all the evidence the presumption afforded the City Council's judgment has not been overcome.

This case has presented a very difficult constitutional problem. On the basis of the above analysis we have resolved the question in favor of the constitutionality of the ordinance. Accordingly, the judgment of the district court is reversed.

APPENDIX B

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DISTRICT

THE SOAP AND DETERGENT ASSOCIATION, THE PROCTER AND GAMBLE COMPANY, FMC CORPORATION, MONSANTO COMPANY, and AMWAY CORPORATION, *Plaintiffs,*

v.

THE CITY OF CHICAGO, *Defendant.*

DECISION and ORDER

This case came on for trial on a declaratory action brought by an association and four of its members engaged in manufacturing detergents and phosphates. Plaintiffs seek to set aside an ordinance of the City of Chicago which since June 30, 1972 has made it a criminal offense to sell detergents containing phosphorus within the City. Phosphorus is the element from which phosphates are made and phosphates are a principal ingredient of most detergents. Hence detergent products sold in Chicago must now be made with substitutes for phosphates.

Plaintiffs Soap and Detergent Association, Monsanto Company and Amway Corporation have failed to prove the jurisdictional amount required by 28 U.S.C. § 1331, and their complaints will be dismissed. The remaining plaintiffs, The Procter and Gamble Company, a detergent manufacturer, and FMC Corporation, a phosphate manufacturer, have proved that well in excess of $10,000 is involved in their cases, and diversity is not contested.

The ordinance in question was adopted by the City Council on October 14, 1970 upon the recommendation of its Committee on Environmental Control which had held public hearings on the matter for three days. The Committee did not make a written report and the City Council made no findings or declarations of policy, so the specific bases for the ordinance became known only in the course of this litigation. The court ruled at the close of the plaintiffs' case that it had produced sufficient evidence to require the City to justify the ordinance.

We now find and conclude that the City failed to sustain this burden, under the particular facts and circumstances of this case, and that the two remaining plaintiffs are entitled to the declaratory and injunctive relief prayed for. The evidence is largely technical and too voluminous to summarize in detail, but the court finds the following controlling facts have been proved.

The ordinance provides in pertinent part as follows:

> § 17-7.3(b) It shall be unlawful for any person, firm, or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent containing any phosphorus, expressed as elemental phosphorus, including synthetic detergents or detergents manufactured for machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment, within the City of Chicago from and after June 30, 1972.
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> § 17-7.4 *Penalties.* Any person found guilty of violating, disobeying, omitting, neglecting, or refusing to comply with, or resisting or opposing the enforcement of any of the provisions of this Article VII, . . . upon conviction thereof shall be punished by a fine of not less than one hundred dollars ($100.) nor more than $300.00 for the first offense, and not less than $300.00 nor more than $500.00 for the second and each subsequent offense, in any 180-day period, or shall be punishable as a misdemeanor by incarceration in the county jail for a term not to exceed six months under procedures set forth in Section 1-2-1.1 of the Illinois

> Municipal Code (Ill. Rev. Stat. 1969, ch. 24, par. 1-2-1.1) as amended, or by both fine and imprisonment. A separate and distinct offense shall be regarded as committed each day on which such person shall continue or permit any such violation, or failure to comply is permitted to exist after notification thereof.

Similar ordinances have been adopted by various jurisdictions, state and local, in widely separated areas of the United States. As of September 1972, four small municipalities neighboring Chicago, and also the unincorporated area of Lake County, Illinois prohibit the sale of detergents containing any phosphorous. Other neighboring jurisdictions, including the states of Indiana and Michigan, limit the phosphorus content to 8.7%. Several municipalities have repealed or delayed the effective date of their ordinances, and most of the other municipalities surrounding Chicago have no restrictions on the sale or use of phosphate detergents.

Nationwide, a patchwork pattern of ordinances and laws has grown up over the past three years ranging from complete prohibition of phosphate detergents in Dade County, Florida, Erie County (Buffalo), New York, and two additional states outside of the Mid-West, an 8.7% limitation in many other localities, and no controls elsewhere. These laws and ordinances have become too numerous and diverse to summarize beyond the date of the stipulation of the parties dated September 26, 1972. The task of complying with and contesting this rash of legislation has required considerable attention of the industry, one corporate official testifying that he spends a day a week on the problem. Members of the industry or its association have spent several millions of dollars to develop a substitute for phosphate in detergents, but none of these efforts have yet been successful. Consequently, in many areas plaintiffs have replaced all or most of the phosphorus content of detergents with soda ash, a less effective and cheaper component.

Plaintiffs contend that detergents containing phosphorus are a useful and harmless product and that the City's ordinance unreasonably and unjustifiably interferes with their normal distribution and sale of these products in interstate commerce. The original complaints also alleged unconstitutional discrimination and a violation of the plaintiffs' right to due process, among other things, but on October 30, 1972 they filed a Second Amended Complaint which was limited to an alleged violation of the Commerce Clause of the Constitution of the United States (Article I, Section 8, Clause 3). Plaintiffs seek a declaration that the ordinance is unconstitutional and to enjoin its enforcement.

The City contends that the ordinance is justified to protect the Illinois Waterway into which the Metropolitan Sanitary District discharges the City's sewage effluent and also to protect the City's water supply which comes from Lake Michigan. It contends that phosphates unduly accelerate the natural eutrophication of both of these bodies of water and would be unreasonably expensive to remove by sewage treatment. Since detergents contribute approximately 50% of the phosphates in Chicago's sewage effluent, it asserts that it has the power and the right to prohibit the introduction of this element into the system, despite any interference that this may have on interstate commerce. In short the City argues that the benefits resulting from the ordinance outweigh any disadvantage to the plaintiffs or their customers, including housewives and businesses using detergents. It is worth noting that none of these groups nor any of the communities which depend on the two bodies of water have sought to intervene in this case.

The City does not contend that it has the right to prohibit the sale of safe and useful products within its confines, and plaintiffs do not contend that they have the right to distribute and sell a product in interstate com-

merce which damages the public's water. The principal issues therefore are whether the ordinance does interfere with the free flow of interstate commerce and, if so, whether this is justified by the benefits realized by the ordinance. The parties have offered their evidence in a commendably thorough and forthright manner, so that the court has been greatly assisted in deciding this case on a much more complete record than was presented to the Committee on Environmental Control of the Chicago City Council.

There can be no doubt that local governments have the right to enact laws for the protection of the public, even to the extent of regulating or excluding certain undesirable activities from interstate commerce. For example, the State of Florida can forbid the interstate shipment of inedible or immature citrus fruit in order to protect its industry's reputation. *Sligh* v. *Kirkwood, Sheriff of Orange County, Florida,* 237 U.S. 52 (1915). Trucks over a certain size and weight were held to be properly excluded by one state in order to protect its highways. *South Carolina Highway Department* v. *Barnwell Brothers,* 303 U.S. 177 (1939). A smoke ordinance of the City of Detroit was justified as a health measure even though it burdened interstate navigation. *Huron Portland Cement Company* v. *City of Detroit,* 362 U.S. 440 (1960). In these and similar cases the local interests protected by the laws in question were found to justify the reasonable exercise of local police powers.

On the other hand, the State of Illinois cannot require interstate trucks to use specially designed mudguards when this is not reasonably necessary for the protection of its citizens. *Bibb* v. *Navajo Freight Lines,* 359 U.S. 520 (1959). Arizona cannot require its melons to be packaged within the state if this is primarily for the purpose of creating a local enterprise. *Pike* v. *Bruce Church, Inc.,* 397 U.S. 137 (1970). And the State of New York, in order to protect local economic interests, cannot refuse to issue a permit

for a plant to produce milk in New York to be shipped to Boston. *H. P. Hood & Sons* v. *DuMond*, 336 U.S. 525 (1949). In all of the foregoing cases, the state and local laws were held to be an impermissible interference with interstate commerce because they were not shown to be sufficiently necessary for the health, safety or welfare of the local citizenry.

Modern-day detergents were developed and patented after World War II by chemists who discovered that phosphates when combined with other materials would clean better than soap, particularly in hard water. Detergents contributed to the development of the automatic washing machines and dishwashers, and the two complementary lines of products flourished. Detergents soon outstripped soap in volume and now contribute gross sales exceeding $2,000,000,000 a year to the economy.

The evidence is clear that a detergent made with phosphate is a more effective cleaning agent than non-phosphate detergents when used with Chicago's water and is not at all harmful to the persons using it or wearing clothes or eating from utensils washed in it. In the form of phosphates, phosphorus constituted 12.3% of Procter and Gamble's leading detergent, Tide, and up to 25% of some phosphate detergents, before the ordinance required a reformulation. Phosphorus is a natural and benign element appearing to a greater or lesser extent in all living organisms, including the human body.

Besides establishing beyond question that phosphate detergents are not only safe but also beneficial to the users, plaintiffs also proved that the prohibition of the sale of these products in the City of Chicago seriously disrupted the flow of interstate commerce. The normal distribution system which developed for detergents is area-wide, not city-wide. They are manufactured in plants located in various cities in the Mid-West and then sold to major chain stores and similar distributors. In the Chicago area these

purchasers store their products in warehouses and distribute them when needed to retail stores throughout Northern Illinois and Indiana, and Southern Wisconsin and Michigan. The proprietors of these warehouses, who are customers of the plaintiff manufacturer, have adamantly refused to carry two or three formulations for each of the 275 varieties of detergents because this would double or triple the number of "slots" which would be required. Furthermore they refuse to incur the risk of becoming exposed to heavy fines by mistakenly delivering detergents with phosphates to stores in Chicago. The undisputed evidence is that 15 of the 17 major customers of Procter and Gamble servicing Chicago and environs chose to carry only non-phosphate detergents after June 30, 1972 and the two which carry two formulations sell and distribute primarily outside of the City.

The result is that the plaintiffs' normal manufacturing and distribution processes had to be drastically revised because of the Chicago ordinance. Some of the plants which had manufactured only one detergent formulation now must be scheduled to manufacture two; other plants have been devoted to manufacturing non-phosphate detergents which had previously manufactured for a much larger area. This requires obtaining raw materials from different sources, shutting down the plants more frequently for cleaning and change-over operations, changing shipping patterns to accommodate the Chicago market, and many other uneconomical makeshifts. The plaintiff Procter and Gamble Company estimates that its shipping costs for raw materials and finished products have been increased $2,500,000 a year due to the changed production arrangements required for the Chicago area. It did not sell any detergents in the Chicago area for five months after June 30, 1972 because it did not make a satisfactory non-phosphate detergent, thereby losing approximately $4,-700,000 in sales. It has completely withdrawn a tablet detergent from the Chicago market because of inability

to formulate it effectively without phosphate. Plaintiff FMC Corporation has lost sales of phosphates amounting to about $500,000 a year to its customers selling in the Chicago area.

The court does not consider relevant whether it is more profitable to manufacture the non-phosphate detergents; the question is whether the plaintiffs have the right to sell and ship a harmless product in interstate commerce. The evidence of increased costs of manufacture and distribution, however, is relevant to show a burden on interstate commerce. It then becomes the task of the defendant City to justify its ordinance by showing at least some need to protect the public health, safety or welfare. This need is not measurable in dollars and cents but can be weighed equitably against the plaintiffs' right to free trade. E.g., *Bibb* v. *Navajo Freight Lines, supra.*

The City's justifications for the ordinance were of an indirect nature, to the effect that excessive phosphates in sewage cause undesirable changes in the Illinois Waterway and in Lake Michigan. All of Chicago's sewage is collected and treated by the Metropolitan Sanitary District, an independent governmental entity. Most of this effluent is then channelled into the Sanitary and Ship Canal which enters the Des Plaines River at Lockport and then becomes the Illinois River. Only a very small amount of phosphates are removed by the Metropolitan Sanitary District and none is removed intentionally except at one plant. Another plant is under construction which will remove phosphate from effluent discharged into the Fox River and thence into the Illinois. Phosphates will be removed by that plant in order to comply with the proposed regulation of the Illinois Pollution Control Board, but the Metropolitan Sanitary District has officially opposed any requirement that it remove phosphates from sewage. Nor is there any limit set by the Illinois Pollution Control Board on the amount of phosphate which can be discharged into the Illinois River.

Phosphate in water is not itself a pollutant. Some communities add it to water in the purification process for the purpose of softening. Excessive phosphates in the sewage effluent, however, can cause nuisance algae to flourish, resulting in a deterioration of the fish species, an unpleasant odor from decaying algae, and a bad taste in the water when used for drinking. The long-range effect of nuisance algae is to accelerate natural eutrophication and, by over-abundance, to ultimately destroy the value of a body of water. This has happened in parts of Lake Erie.

The weight of the evidence showed that there was no significant amount of nuisance algae in the Illinois River before the ordinance was passed and consequently that the ordinance was not required for this objective. Neither the State of Illinois nor the Federal government nor any municipality or person along these rivers requested this ordinance or testified in its support before the City Council's Committee or in this court. In fact scientists of the State of Illinois and Missouri testified in the case at bar that nuisance algae was no problem in the Illinois and Mississippi Rivers, and no evidence was offered of algae in the waterways above the Illinois River.

The reason for the lack of nuisance algae in the Illinois and Mississippi Rivers is apparently attributable to such causes as excessive turbidity, the periodic flushing of the river by high water, and the presence of some undefined trace elements which inhibit the growth of algae. More to the point, however, is the fact that the Illinois and Mississippi Rivers are so overloaded with phosphates that the removal of phosphates from detergents can have no effect on their plant or fish life. These rivers carry a higher percentage of phosphates than any other river in the United States, contributed by leaves and other natural sources, agricultural fertilizers, industrial effluent, human wastes and detergents. As a result the Illinois River at

Peoria contains at least 25 times as much phosphate as is necessary to sustain nuisance algae, of which the Chicago detergents contributed approximately 25%. The maximum or "limiting" amount of phosphate which nuisance algae can use is about .02 milligrams per liter; any amount above this is surplus, having no effect on the growth of algae.

According to intensive samplings made by the Illinois State Water Survey, the Illinois River at Peoria before the Chicago ordinance became effective contained a minimum of .5 milligrams of phosphate per liter and averaged 1.5 milligrams. After the ordinance went into effect, the lowest phosphate count was .025 milligrams per liter and the average was .5, still far above the limiting factor for nuisance algae. Although these measurements were taken some miles downstream from Lockport, the witness expressed the scientific opinion that 75 to 80% of Chicago's phosphates continue in the stream down to Peoria and that the loss is more than regained by contributions added by industry, sewage and other factors below Lockport. Nonetheless he testified that there was no nuisance algae in the Illinois River and that phosphates did not damage or threaten its water. Even the defendant's witnesses admitted that phosphates are not a limiting factor for nuisance algae at any place down to and including the Gulf of Mexico, before or after the ordinance.

After the ordinance had been in effect for four months, one of the plaintiffs' witnesses took a quantity of water from the Illinois River at two spots downstream from Lockport and grew algae in it under laboratory conditions. He found that the re-introduction of phosphates had no discernible effect on the growth of algae in this particular water but that the addition of nitrogen did. He concluded that the elimination of phosphates from detergents had had no effect on the growth of algae and was not justified for this objective.

By the time of trial, the Chicago ordinance had been in effect for almost six months, and an earlier provision of the ordinance, reducing phosphorus in many detergents to 8.7%, had been in effect since February 1, 1971. The plaintiffs and all other manufacturers of detergents have apparently complied fully with the ordinance, and as a result the amount of phosphates in the effluent of the Metropolitan Sanitary District has decreased markedly. The defendant therefore had the benefit of an actual test period after February 1, 1971, but it offered no evidence of any change in the alleged algae in the rivers. The only evidence of tests after the effective dates of the ordinance was the plaintiffs' witness who testified convincingly that the ordinance had no effect.

The City of Chicago introduced a series of aerial photographs into evidence which purported to show algae growth in the Illinois River at various places. These were taken during the hearings conducted by the Committee on Environmental Control in the summer of 1970 but were not accompanied by any physical inspections or analysis of the substances or water. Although the photographs were quite impressive at first sight, the plaintiffs demonstrated that most of them were taken at sites along the Illinois River where tributaries containing nuisance algae flowed into the Illinois. The photographs therefore were not of sufficient weight to establish a justification for the ordinance.

The plaintiffs contended, at least in the earlier stages of this litigation, that the City of Chicago has no power or authority to protect the water quality for persons who live downstream. Although it is true that the City cannot legislate beyond its boundaries, it does have the right, indeed the obligation, to prevent its activities from damaging its neighbors. Cf. *Sligh* v. *Kirkwood, Sheriff of Orange County, Florida,* 237 U.S. 52 at p. 60 (1915). Just as Chicago is not privileged to dump raw sewage into the Illinois River, so likewise it cannot lawfully dump other pollutants into

the waterways or air. This is not a jurisdictional problem, it is a question of controlling nuisances, and the City undoubtedly has the power to do this.

On the other hand, the City cannot interfere with interstate commerce merely for hortatory purposes, to influence other cities to refrain from discharging phosphates into Lake Michigan. The concentration of phosphates in the Lake is far lower than in the Illinois River, approximately at the limiting amount of .02 milligrams per liter, and the danger of nuisance algae is therefore much more real. The Lake does not have the turbidity or flushing antidotes found in the rivers, and the excessive discharge of phosphates into the Lake can actually cause the bad results which the City contends have occurred in the Illinois Waterway.

The City has not shown that any appreciable amount of sewage from Chicago gets into Lake Michigan, however. The only places where Chicago sewage is known to enter the Lake on occasion is from the Chicago River and the Calumet River. Both of these rivers now flow away from the Lake, and their reversal into the Lake is controlled by locks. During excessively heavy rainstorms these two rivers can be allowed to flow into the Lake as a safety valve to relieve over-loading of the Metropolitan Sanitary District facilities. However, this has only occurred from the Chicago River on two occasions in the last ten years and on two other occasions from the Calumet River during the same decade. The amount of discharge into the Lake is not accurately measured, but it has been relatively minimal, usually much less than 200,000,000 cubic feet on each occasion. The back-flow contains only about 45% of raw sewage and a proportionately smaller amount of phosphate. The amount of phosphate actually discharged into the Lake by these occasional back-flows is not contained in any measurements made by the City or by the Metropolitan Sanitary District, but we conclude from the evi-

dence that in the years of serious back-flows, detergents contribute not more than 250 tons of the 15,000,000 pounds of phosphates dumped into the Lake each year, approximately 3%. Thus this secondary justification for the ordinance is found to be insufficient.

We believe that the Chicago detergent ordinance was enacted in good faith and for laudatory objectives, and that a legislative enactment should not be interfered with by the courts unless clearly required. Nevertheless we find and conclude that Section 17-7.3(b) of the Chicago ordinance, prohibiting the sale of detergents containing any phosphorus, constitutes an unjustified interference with interstate commerce and therefore violates Article I, Section 8, Clause 3 of the United States Constitution. This does not necessarily mean that similar ordinances in other jurisdictions cannot be sustained, where the effects of discharging phosphates into the public water supply may outweigh the interference with interstate commerce. It is also possible that area-wide legislation or regulation may reduce the phosphate contributions into the Illinois Waterway to a level where detergents should be controlled similarly with other sources of phosphates, but this is not contemplated even under the Federal Water Pollution Control Act until July 1, 1977 at the earliest. (P.L. 92-500, Section 301(b)). Until plenary jurisdictions take action to control all phosphates down to the limiting level so that phosphates from detergents then might have some effect on the Illinois Waterway, the City of Chicago should adopt no more than a stand-by ordinance, to become effective if and when this level is approached.

If Section 17-7.3(b) of the Municipal Code prohibiting the sale of detergents containing any phosphorus is stricken, then Section 17-7.3(a) which limits sales of detergents to those containing less than 8.7% phosphorus would remain, theoretically. However, it is apparent that even this lesser restriction has insufficient legal justification and

would have substantially the same effect on interstate commerce as does the total ban. Furthermore the intent of the City Council seems to have been to supersede the 8.7% requirement by the total ban, thus terminating the former requirement by June 30, 1972. Thus Section 17-7.3(a) also fails, both as a matter of statutory construction and as a matter of constitutional law, and with these two sections void, the entire ordinance, including the labelling and enforcement provisions, are of no effect.

The court reserved ruling on some of the documents offered during trial and in depositions. The objections to plaintiffs' exhibits 13 and 14 are sustained. The objections to defendant's exhibits 6, 39, 42, 46, 51, 52, 53, 54 and 55 are sustained. The objections to defendant's exhibits 26, 27, 28 and 29 are overruled. 28 U.S.C. § 1733.

Plaintiffs are ordered to submit a final judgment order, agreed to in form, in accordance with the foregoing findings and conclusions to be presented in open court on March 9, 1973 at 10 a.m. At that time the parties may bring up any other matters which they consider necessary for the final disposition of this case.

APPENDIX C

STATUTES INVOLVED

City of Chicago Code 17-7.1—7.4 (1973)

SECTION 17-7.1. *Definitions.* (a) The term "synthetic detergent" or "detergent" means any cleaning compound which is available for household use, laundry use, other personal uses or industrial use, which is composed of organic and inorganic compounds, including soaps, water softeners, surface active agents, dispersing agents, foaming agents, buffering agents, builders, fillers, dyes, enzymes and fabric softeners, whether in the form of crystals, powders, flakes, bars, liquids, sprays, or any other form.

(b) The term "polyphosphate builder" or "phosphorus" means a water softening and soil suspending agent made from condensed phosphates, including pyrophosphates, triphosphates, tripolyphosphates, metaphosphates and glassy phosphates, used as a detergent ingredient, but shall not include "polyphosphate builders" or "phosphorus" which is essential for medical, scientific or special engineering use under such conditions and regulations as may be prescribed, after hearing, by the Commissioner of Environmental Control.

(c) The term "recommended use level" means the amount of synthetic detergent or detergent which the manufacturer thereof recommends for use per wash load, at which level said synthetic detergent or detergent will effectively perform its intended function.

(d) The term "machine dishwasher" means equipment manufactured for the purpose of cleaning dishes, glassware and other utensils involved in food preparation, consumption or use, using a combination of water agitation and high temperatures.

(e) The terms "dairy equipment," "beverage equipment" and "food processing equipment" mean that equip-

ment used in the production of milk and dairy products, foods and beverages, including the processing, preparation or packaging thereof for consumption.

(f) The term "industrial cleaning equipment" means machinery and other tools used in cleaning processes during the course of industrial manufacturing, production and assembly.

SECTION 17-7.2. *Labeling.* It shall be unlawful for any person, firm or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent, whether in the form of crystals, powders, flakes, bars, liquid, sprays, or any other form, in the City of Chicago from and after February 1, 1971, unless the container, wrapper or other packaging thereof shall be clearly labeled with respect to its polyphosphate builder or phosphorus ingredient content clearly and legibly set forth thereon in terms of percentage of phosphorus by weight, expressed as elemental phosphorus per container, wrapper or other packaging thereof, as well as grams of phosphorus, expressed as elemental phosphorus, per recommended use level.

SECTION 17-7.3. *Limitations.* (a) It shall be unlawful for any person, firm or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent containing more than eight and seven/tenths percent (8.7%) of phosphorus by weight, expressed as elemental phosphorus, within the City of Chicago from and after February 1, 1971. It shall also be unlawful for any person, firm or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent which requires a recommended use level of said synthetic detergent or detergent which contains more than seven grams (7 gms.) of phosphorus by weight expressed as elemental phosphorus, within the City of Chicago from and after February 1, 1971. Notwithstanding the foregoing provisions of this

Section 17-7.3(a), synthetic detergents or detergents manufactured for use in machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment shall not be subject to the limitations herein set forth, but are hereby made expressly subject to the provisions of Section 17-7.3(b).

(b) It shall be unlawful for any person, firm or corporation to sell, offer or expose for sale, give or furnish any synthetic detergent or detergent containing any phosphorus, expressed as elemental phosphorus, including synthetic detergents or detergents manufactured for machine dishwashers, dairy equipment, beverage equipment, food processing equipment and industrial cleaning equipment, within the City of Chicago from and after June 30, 1972.

(c) The concentration of phosphorus by weight, expressed as elemental phosphorus in any synthetic detergent or detergent shall be determined by the current applicable method prescribed by the American Society for Testing and Materials (A.S.T.M.).

SECTION 17-7.4. *Penalties.* Any person found guilty of violating, disobeying, omitting, neglecting, or refusing to comply with, or resisting or opposing the enforcement of any of the provisions of this Article VII, except when otherwise specifically provided, upon conviction thereof shall be punished by a fine of not less than one hundred dollars ($100.) nor more than $300.00 for the first offense, and not less than $300.00 nor more than $500.00 for the second and each subsequent offense, in any 180-day period, or shall be punishable as a misdemeanor by incarceration in the county jail for a term not to exceed six months under procedures set forth in Section 1-2-1.1 of the Illinois Municipal Code (Ill. Rev. Stat. 1969, ch. 24, par. 1-2-1.1) as amended, or by both fine and imprisonment. A separate and distinct offense shall be regarded as committed each day on which such person shall continue or permit any

such violation, or failure to comply is permitted to exist after notification thereof.

Article I, section 8, clause 3 of the Constitution of the United States.

SECTION 8. The Congress shall have Power

* * *

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.